

# Local Geography Educator

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# Abstract

100-200 words

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# **1 Introduction**

What will be done: an app that teaches local geography. What is local geography? Who might wanna use it. Similar apps: Seterra, World Geography, Duolingo.

## **2 Background**

Boils down into design decisions.

### **2.1 Educational aspects**

Human factors etc.

### **2.2 Initial user considerations**

Interview with potential users about functionality.

### **2.3 Scenario analysis**

- 1) Student in new town, wants to know city better.
- 2) Someone going on vacation, wants to study landmarks beforehand.
- 3) Taxi-driver student.
- 4) Sailer wants to explore archipelago of Stockholm.

### **2.4 Functional requirements**

Create exercise, perform quizzes...

### **2.5 Non-functional requirements**

Educational...

### **2.6 Existing applications analysis**

Strengths and weaknesses of applications designed for geo-education.

### **2.7 Key-functionality for education**

Key-functionality for successful education in a geo-education app: Motivation, Structure, Question-design, Educational support, Stimulation, Appearance.

### **2.8 Design decisions**

Design decisions taken after considering aspects described above.

## **3 Design**

Describing the various windows of the finished product. Mock-ups. Refer to background.

### **3.1 Existing areas window**

### **3.2 Create new area window**

### **3.3 A particular area's window**

### **3.4 Quiz**

#### **3.4.1 Quiz question: Name it**

#### **3.4.2 Quiz question: Place it**

#### **3.4.3 Quiz question: Pair it**

### **3.5 Settings**

## **4 Implementation**

### **4.1 Fetching data**

OpenStreetMap, Overpass API

### **4.2 Data processing**

TagInfo, json, regular expressions.

### **4.3 Integrated maps**

MapBox.

### **4.4 Application development**

Android Studio, Git.

## **5 Evaluation**

Finished product will be tested by some potential users for a validation of the educational value, as a follow-up to the initial user considerations.

## **6 Future work**

User accounts, backing up progress, connecting with friends..

## 7 Discussion

Do I consider the app to be useful, why, why not? What is good, what is bad?

# References

Vancouver style referencing (using brackets [1]). (Mendeley plugin)

[1] Title, writer, publisher, year...